



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,600	02/12/2002	Robert Sultan	FJPR-186XX	4837

207 7590 03/20/2007  
WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP  
TEN POST OFFICE SQUARE  
BOSTON, MA 02109

EXAMINER
----------

EL CHANTI, HUSSEIN A

ART UNIT	PAPER NUMBER
----------	--------------

2157

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/074,600	SULTAN ET AL.	
	Examiner	Art Unit	
	Hussein A. El-chanti	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4, 6-9, 11, 12 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-9,11,12 and 14-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/02</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is responsive to RCE received on Jan. 5, 2007. Claims 1, 3, 4, 6-9, 11, 12 and 14-18 were amended. Claims 5 and 13 were canceled. Claims 1-4, 6-12 and 14-18 are pending examination.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 6-9, 11, 12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khansari et al., U.S. Patent No. 6,446,131 (referred to hereafter as Khansari) in view of Tomizawa et al., U.S. Patent No. 6,598,092 (referred to hereafter as Tomizawa).

As to claims 1 and 9, Khansari teaches a data communications network and method, comprising:

a plurality of data communications networks, the plurality of networks including a first network, a second network and a third network (see fig. 10),

wherein at least the second network is configured for spatial reuse (see fig. 10);

at least one first node coupled to the first network, the at least one first node including an end station (see fig. 10);

at least one second node coupled to the second network (see fig. 10),

a first bridge configured to link the first network to the second network (see fig. 10); and

a second bridge configured to link the second network to the third network (see fig. 10, fig. 10 shows a first, second and third bridge; a first, second and third networks),

wherein the second bridge is operative (1) to learn an association between the first bridge and the end station coupled to the first network, and (2) upon receiving a packet destined for the end station: (i) to forward the received packet as a broadcast transmission on the second network between the second bridge and the first bridge in a manner indicating that the packet is to be examined by each of the at least one second node coupled to the second network, in the event that the association between the first bridge and the end station coupled to the first network has not yet been learned (see col. 6 lines 36-52 and col. 7 lines 12-15 and 30-35, the bridge records a the networks and address of nodes connected to the network, if a packet destination address is not found, then the packet is transmitted to all the networks connected to the bridge), and (ii) to forward the received packet as a unicast transmission to the first bridge on the network in the event that the association between the first bridge and the end station has been learned (see col. 7 lines 18-28, if the destination address is found in the table, the packet is transmitted as a unicast to the destination node).

Khansari does not explicitly teach the network is a ring network. However Tomizawa teaches a multiple ring networks connected through multiple bridges (see fig. 9-12). It would have been obvious for one of the ordinary skill in the art at the time of the invention to the method taught by Khansari in a ring network because doing so would

allow good survivability and the ability to provide simpler routing than other topologies as explicitly suggested by Tomizawa (see col. 8 lines 42-46).

As to claims 2 and 10, Khansari teaches a data communications network according to claims 1 and 9, wherein the end station comprises an internetworking bridge (see fig. 10).

As to claims 3 and 11, Khansari teaches a data communications network according to claims 2 and 10, wherein the interworking bridge provides transparent LAN services via the network to customers connected to external LAN segments (see fig. 10).

As to claims 4 and 12, Khansari teaches a data communications network according to claims 1 and 9, wherein the network is a resilient packet network (see fig. 10).

As to claims 6 and 14, Khansari teaches a data communications network according to claims 1 and 9, wherein the end station is a first end station, and further comprising a second end station, the second end station being coupled to the second bridge, and wherein the first bridge is operative (1) to learn an association between the second bridge and the second end station, and (2) upon receiving a packet destined for the second end station: (i) to forward the received packet as a broadcast transmission on the network in the event that the association between the second bridge and the second end station has not yet been learned, and (ii) to forward the received packet as a unicast transmission to the second bridge on the network in the event that the

association between the second bridge and the second end station has been learned (see col. 7 lines 11-38).

As to claims 7 and 15, Khansari teaches a data communications network according to claims 6 and 14, wherein the first bridge learns the association between the second bridge and the second end station by monitoring a broadcast transmission of the second bridge on the network, the broadcast transmission including an identifier of the second bridge as an ingress bridge and an address of the second end station as a source of a message included in the transmission (see col. 7 lines 11-38).

As to claims 8 and 16, Khansari teaches a data communications network according to claims 6 and 14, wherein the network is a first data communications network, and further comprising (i) a second data communications network configured for spatial reuse, the second network coupling the second bridge to the second end station, and (ii) a third bridge, the third bridge being coupled to both the first and second networks as a backup to the second bridge, and wherein the second bridge is operative to send unicast update messages to the third bridge enabling the third bridge to keep track of the associations learned by the second bridge, and wherein the third bridge is operative upon failure of the second bridge to begin the learning of associations and the forwarding of packets on the first network as broadcast or unicast transmissions depending on whether respective associations have been learned (see col. 7 lines 11-38).

As to claims 17 and 18, Khansari teaches a data communication network and method of claims 1 and 9 respectively wherein the packet contains first and second information, the first information indicating an identity of at least one of a source node and a destination node of the packet, the second information indicating an identity of at least one of an ingress node and an egress node for the packet and wherein the second forwarding step includes forwarding the received packet as a unicast transmission to the first bridge on the network in the event that the association between the first bridge and the end station has been learned, the first information identifying the end station as one of the source node and the destination node of the packet, and the second information identifying the first bridge as one of the ingress node and the egress node for the packet (see col. 2 lines 27-54 and col. 3 lines 7-21).

### ***Response to Arguments***

3. Applicant's arguments have been fully considered but are moot in view of the new grounds of rejection.
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A. El-chanti whose telephone number is (571)272-3999. The examiner can normally be reached on Mon-Fri 8:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2157

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hussein Elchanti

March 15, 2007

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100